

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1-10. (canceled).

11. (currently amended): A sterile microorganism growth substrate comprising:

(a) a sterilized nutrient composition, wherein said composition is a sterile-biomass generated from bacterial cells by autolysis, optionally followed by ultrafiltration and evaporation, wherein said bacterial cells comprise Methylococcus capsulatus (Bath) (strain NCIMB 41526), Ralstonia sp. DB3 (strain NCIMB 41527), Aneurinibacillus sp. DB4 (strain NCIMB 41528) and Brevibacillus agri DB5 (strain NCIMB 41525);

- (i) at least one species of methanotrophic bacteria, and
  - (ii) at least one species of heterotrophic bacteria;
- (b) at least one sterile nutrient, which is a carbon source, added to the biomass, and;
- (c) optionally a sterile diluent.

12. (currently amended): The substrate as claimed in claim 11 or 37, wherein said at least one sterile nutrient added to the biomass is glucose.

13. (previously presented): The substrate as claimed in claim 12, wherein glucose is present in a weight ratio of 5:1 to 1:5, on a dry mass basis relative to the biomass.

14. (previously presented): The substrate as claimed in claim 35, wherein nitrate and mineral salts are present in a weight ratio of 0.01:1 to 0.2:1, relative to the biomass.

**15-24. (canceled).**

25. (previously presented): The substrate as claimed in claim 35, wherein said mineral salts are selected from the group consisting of potassium, calcium, magnesium, sodium, molybdenum, iron, zinc, boron, cobalt, manganese and nickel compounds.

26. (previously presented): The substrate as claimed in claim 13, wherein glucose is present in a weight ratio of 2:1 to 1:2, on a dry mass basis relative to the biomass.

27. (previously presented): The substrate as claimed in claim 14, wherein nitrate and mineral salts are present in a weight ratio of 0.05:1 to 0.1:1, relative to the biomass.

**28-29. (canceled).**

30. (currently amended): The substrate as claimed in claim 11 or 37, wherein the sterilize sterilized nutrient composition is a dried autolysate of a bacterial biomass.

31. (currently amended): The substrate as claimed in claim 11 or 37, wherein said biomass is generated from a culture containing at least one species of methanotrophic bacteria and at least one species of heterotrophic bacteria, wherein the methanotrophic bacteria and the heterotrophic bacteria**bacterial cells** are grown in a culture medium containing methane, oxygen, ammonia, and mineral feeds.

32. (currently amended): The substrate as claimed in claim 31, wherein said culture is at least 50% by weight Methylococcus capsulatus (Bath) (strain NCIMB 41526) methanotrophic bacteria relative to the total bacterial weight.

33. (currently amended): The substrate as claimed in claim 32, wherein said culture is from 75% to 95% by weight Methylococcus capsulatus (Bath) (strain NCIMB 41526) methanotrophic bacteria relative to the total bacterial weight.

34. (canceled).

35. (currently amended): The substrate of claim 11 or 37, wherein nitrate or mineral salts, or combination thereof, are additionally added to the biomass.

36. (canceled).

37. (new): A sterile microorganism growth substrate comprising:

- (a) a sterilized nutrient composition, wherein said composition is a biomass generated from bacterial cells by autolysis followed by ultrafiltration and evaporation, wherein said bacterial cells comprise *Methylococcus capsulatus* (Bath) (strain NCIMB 41526), *Ralstonia* sp. DB3 (strain NCIMB 41527), *Aneurinibacillus* sp. DB4 (strain NCIMB 41528) and *Brevibacillus agri* DB5 (strain NCIMB 41525);
- (b) at least one sterile nutrient, which is a carbon source, added to the biomass, and;
- (c) optionally a sterile diluent.